

# ECHO IRELAND

IRISH RADIO TRANSMITTERS SOCIETY

Autumn 2017 - 85 YEARS



EI9E/P  
White Mountain  
Co. Wexford  
VHF/UHF Field Day  
1-2 July 2017



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# News from around the Clubs

## Balloon and Amateur Radio Club

### Alan Cronin EI8EM

The BARC had their annual stand at HamRadio 2017 in Friedrichshafen, Germany on July 14th, 15th, 16th.

Following a request made by Alan Cronin EI8EM to Gerry Birkhead EI9DZ it was agreed that Limerick Radio Club would provide a banner for display on the BARC stand. It was agreed that the banner would display the nine QSL cards, the award, and details of each county the nine Wild Atlantic Way call signs were representing. The details were to be in German and English.

In due course the banner and a quantity of publicity material were delivered to the home of Gerry EI9DZ who along with Sean EI7CV carried it to Friedrichshafen.

On July 13<sup>th</sup> the banner was put on display on the BARC stand in addition a large map of Ireland was set up in a prominent position adorned with QSL cards from the nine counties represented, as well as copy of the award. These exhibits attracted a great amount of attention from visitors to the stand throughout the course of the three days of the show.

As might be expected most of the visitors who showed an interest in the WAW exhibits came from Germany and adjoining countries. It was quite a surprise to find so many of them had already made radio contact with the WAW stations. Some of them had already exchanged QSL cards with Dave EI6AL, manager for all nine call signs, while others were looking for information on how to make contacts and exchanging QSL cards.

It seemed to be a general view of these amateurs visiting the BARC stand that the operation of the special WAW stations should extend beyond the end of 2017 and not terminate next December as planned.

## WILD ATLANTIC WAY AWARD

Arbeite die Rufzeichen aller 9 Grafschaften die an der gesamten West Küste Irlands, der sogenannten Touristen Route "Wild Atlantic Way" gelegen sind und die ganze wilde Schönheit dieser Region auf über 2500 km Länge zeigen.

To get Award, Work all nine counties call signs on the 2500 km "Wild Atlantic Way" Tourist Route, running along the West Coast of Ireland.



Gerry EI9DZ (left) and Sean EI7CV wait for the crowds at the Balloon and Amateur Radio Club stand at HamRadio 2017

### Front Cover

Photos by the EI9E team.  
Design by Joe EI7GY

### Echo Ireland - Winter 2017

Copy deadline - 15th November  
Articles to [newsteam@irts.ie](mailto:newsteam@irts.ie)

## Avondhu Radio Club

The Club had a visit from Warren Stone VO1KS. Warren visited Cork early this year and is an engineer with the Canadian Broadcast Corporation. He likes converting redundant commercial broadcast amplifiers for use in the amateur radio community. The picture below shows Warren VO1KS (*on left*) and Denis EI4KH beside a top-band vertical.



Avondhu Radio Club members were active from Brow Head, Crookhaven, West Cork, for Marconi Day. The special event callsign EI11MD was registered with the Cornish Radio Club, as an official station, who issue a special award for contacting more than 15 IMD stations. [gx4crc.com/imd-award](http://gx4crc.com/imd-award)

The site at Brow Head is beautiful, with wonderful views out to sea in many directions. Marconi built his antennas on this site in 1901, enabling TransAtlantic communications.



*The remains of the Marconi Radio Station with the base of the transmitter mast in the foreground*



*EI11MD 2017 L to R; John Cuthbert EI7HMB, Denis O'Flaherty EI4KH, Hans Krauss EI9GRB, Gerard Scannell EI5KF*

## Dundalk Amateur Radio Society

### Brian Whelan EI8EJB

Sadly the main notable event in recent months was the passing of DARS Club Member Tony Allen EI4DIB. Tributes to Tony appear elsewhere in this edition of Echo Ireland. Tony is, and will be, sadly missed from club activities and from on-air banter. RIP.

It was decided as a mark of respect to Tony EI4DIB, that DARS would not take part in the IRTS VHF/UHF Field day as this event took place only a couple of weeks following Tony's passing.

However, DARS did take part in the recent 2m Counties Contest on Sunday 27th August. Despite probably being the only location in the country having torrents of rain accompany our operation, we set up and operated in the contest which was, as always, an enjoyable event to take part in.

As our second meeting of each month is dedicated to Radio Activities, the 2017 - 2018 season of activities got off to a good start with a *very* lively discussion on all things antennas. We plan to have practical antenna session in the future with the EI7DAR club station antennas getting a new lease of life

as well as demonstrations of digital voice technologies such as D-STAR, DMR and Fusion in the coming months.

In order to stimulate activity on 2m in the North East, the X-Net was created so as to provide a focal point to get people to meet on air on a Monday night at 8pm on the local Dundalk repeater (145.675 MHz). So far it is going from strength to strength with stations on both sides of the border getting involved.

### IRTS QSL Service Special Event Call Signs

The outwards and inwards QSL service is available free to IRTS members, whether individuals or clubs, for their own call and for special event stations licensed to them.

The service is also available free to JOTA stations, irrespective of whether an IRTS member is the licence holder. Operators of special-event stations should supply details to the relevant incoming QSL Manager.



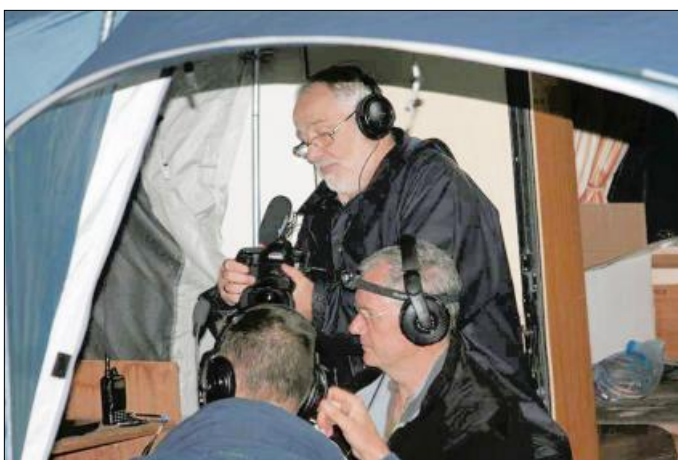
## Tipperary Amateur Radio Group

### Ronan Daly EI4KN

Tipperary Amateur Radio Group visited Ballinacourty Point Lighthouse, Co. Waterford for the 20th annual International Lighthouse Lightship Weekend. Using the club callsign EI7T two stations were manned on both SSB and CW. The members who attended were Paul EI3ENB, Andy EI5JF, John EI7IG, Hugh EI2HI and Ronan EI4KN. Despite challenging conditions during the setup of the station the club members enjoyed a good weekend getting many QSOs in the log. We also had the pleasure of some visitors to the station.



*John EI7IG*



*Hugh EI2HI (back to camera), John EI7IG and Andy EI5JF*



*Ballinacourty Point Lighthouse County Waterford*

## Mayo Radio Experimenters Network

### Dominic Curtin EI9JS



This summer members from the club took part in three events. The CW field day, UHF/VHF field day and the International Lighthouse Lightship weekend. The band conditions on all events this year have been horrible with little or no propagation.

First was the CW event for this the club ran EI0M/P. The station equipment was the clubs portable tower supporting a doublet antenna, this was connected to a balanced tuner. radio used was the clubs ICOM. With this equipment contacts were made on all bands.

The UHF/VHF field day was next. As predicted, the conditions for the weekend were horrible. With being located so far north west the VHF bands need to be wide open for us to have any chance, they weren't. This event was used as a equipment test and maintenance session.

The final outing was the ILLW event. As the conditions have been tough the decision was made to use EI44WAW to increase activity. An ICOM 7200 was used for the 20m band and a ICOM 7300 was used for the 4,6,40 and 80m bands. A doublet was attached to a mast mounted at the side of the lighthouse. A vertical antenna for 40 -10m was attached to the railings around the lighthouse and antennas for 6 & 4m were raised on a tilting-bracket stand supported by the wheel of the jeep. Laptops and a dongle put us on the internet. Headset/microphones were used at both operating positions of the caravan. The majority of contacts were on 20m with a good level of activity on 40 and 80m Saturday evening. 20m was the active band Sunday with a good pile up building at times. All took turns in keeping the contacts piling in; 330 contacts across three band was the count for the activation. We also had several contacts on 6m with the Digimode FT8 using the club call EI7MRE.

Have a look at the club web pages, [ei7mre.org](http://ei7mre.org) for more info and pictures from these events.



*Dominic EI5IX operating CW*

## Kerry Amateur Radio Group

### Declan Horan EI9FVB

It has been a busy few months for KARG, with members participating in some key events during July and August. Monthly meetings continue at the usual venues alternating between Killarney and Castleisland. Visitors are welcome as usual.

### Transatlantic Cable linkup

In a week where the Valentia community celebrated the 151st anniversary of the successful completion of the Transatlantic Cable from Hearts Content, Newfoundland, Canada to Valentia, the Kerry Amateur Radio Group (KARG) commemorated the event by trying to establish a wireless radio linkup with radio amateurs operating from the historic Cable Station at Hearts Content, Newfoundland.

While unfortunately we didn't manage to make a radio QSO due to poor propagation, we did have a telephone call to extend our best wishes to Barry VO1NC and Doug VO1DM at their end of the transatlantic cable. Doug also extended his best wishes to us as Vice President of the RAC (Radio Amateurs of Canada) and Emergency Coordinator IARU R2 of Area A.

Being the IOTA contest weekend, lots of contacts were established around EU from the cable station. Lots of visitors were in attendance on the day, and were fascinated to see a live station making contacts with other EU stations. Visitors were also intrigued to see a demonstration of CW in use. Bastiaan PA3BAS and Marco DM5ML also visited the cable station on the day which made it truly an international event. Marco was earlier QRV in the IOTA contest from Chapeltown, where he was holidaying. Bastiaan and family were holidaying in Caherciveen. We also had a visit from Evelyn O'Rourke, a reporter from RTE Radio 1 Seascapes programme, who was on vacation in the area and recorded from audio for a future Seascapes programme. Lots of good PR for Amateur Radio !!

### International Lighthouse and Lightship

Kerry Amteur Radio Group also participated in the

International Lighthouse and Lightship weekend from 18th-20th August, where they were QRV on SSB, CW and Data modes from Cromwell Point Lighthouse, Valentia. This was KARG's 14th year participating in the ILLW event, and it continues to become more popular each year. Again, lots of visitors passed through on the day, and showed a lot of interest in the demo station we had running over the weekend. The weather was poor, and propagation was poor, but it didn't dampen the spirits. Thanks to all members who participated and helped in any way over the weekend.

### IRTS 2m Counties Contest

Declan EI9FVB was QRV as EI1K/P for the IRTS 2m Counties Contest on Sun 27th Aug, from an elevated location near Tralee. Conditions were pretty good on the day, and lots of QSOs were made up the country to counties like Louth, Meath and Roscommon. The weather was kind on the day, with dry and warm conditions.

Visitors are welcome to come along to any of our events or regular monthly meetings, or can contact us via our website [www.kerryamateurradiogroup.com](http://www.kerryamateurradiogroup.com), and follow us on our Facebook page [Kerry Amateur Radio Group] and our YouTube Channel.

Regular updates and photos are also available on our QRZ page for EI1K

### EI88WAW

We are over half way through 2017, and the Wild Atlantic Way event is still proving to be extremely popular. KARG would like to extend the invitation to any EI op, to activate the EI88WAW call, at any time until the end of the year. Time slots can be booked through the WAW Coordinator on the IRTS webpage, and any activation at all is greatly appreciated. A lot of stations may be looking for their last WAW QSO to complete the full house and get the award. Many thanks to the Limerick Radio Club for creating the event, the IRTS and all others that have facilitated its making it a success.



*Billy O'Connor EI7CQB, Bastiaan Mooijman PA3BAS,  
Dan Mooijman (Junior Op), Lisa Mooijman (XYL),  
Max (dog), Holger Lorenz EI3KM, Tom O'Sullivan EI3AL,  
Declan Horan EI9FVB*





## Cork Radio Club

### Dave Moore EI4BZ

Cork Radio Club resume regular meetings after the summer break and the next meeting will be held in Carrigtwohill Community Centre on Wednesday September 13<sup>th</sup> at 8pm. Following meetings will be held on the 2<sup>nd</sup> Wednesday of each month.

The club operated from the Old Head of Kinsale Lighthouse for the International Lighthouse/Lightship weekend using the special callsign EI1OHL over the weekend of August 19/20<sup>th</sup>. Operation was mainly on 20m on both CW and SSB, and reasonable band conditions together with an excellent location resulted in over a thousand calls in the log.

Thanks to our efficient QSL manager Tim EI2KA and Jeremy EI5GM, the full log was on LOTW by Monday afternoon. Other members involved included Jim EI8GS, Sean EI3GS, Denis EI5GSB, Dave EI4BZ and club secretary SWL Laura. Further details on QRZ.com.

Thanks to the Commissioners of Irish Lights for the use of the facility, and caretaker Alan for his co-operation. The club invites expression of interest from anybody interested in studying for the amateur radio examination over the winter months, and expressions of interest should be sent to [info@corkradioclub.ie](mailto:info@corkradioclub.ie) or 087-6290574.

The club operated in the open section in the recent SSB field day using the callsign EI1C/P from the usual location in Glounthaune. Antennas were a hex beam with dipoles for the low bands and everybody had a very enjoyable weekend. Looking ahead, the club will again be setting up radio stations at the Scout Hall in Little Island for Jamboree on the Air on the 20/22<sup>nd</sup> of October. Following the great success last year, this year's event will also cater for other scout groups in the region and should expose several hundred young boys and girls to the world of amateur radio.

New members and visitors are always welcome and further information about the club can be got using the contact details above.



*Laura SWL at Old Head*



*Jim EI8GS at Old Head*



*Kay WA0WOF/EI7HQ and Dave EI4BZ at Dayton*



*Ops at EI10HL*



## South Eastern Amateur Radio Group

Sean Byrne EI2HZB

Below is a selection of photographs from some recent SEARG events. Anyone who would like to find out more about the South Eastern Amateur Radio Group and its activities can come along to any of our meetings. Check our website [www.searg.ie](http://www.searg.ie) and follow us on Facebook and Twitter.



### News from the Clubs and Contest Participation

We welcome regular contributions from all individual members and clubs affiliated to IRTS telling us about activities which can be shared with our members. We particularly welcome items accompanied by clear, crisp, correctly-exposed photos (pixels are precious), together with separate captions identifying everyone. The way to get your news items printed is to make it easy for us to print them!



## Shannon Basin Radio Club

### Brian Canning EI8IU

Shannon Basin Radio Club are holding theory classes in the Shamrock Lodge Hotel, Athlone every Tuesday night at 8pm. Classes will continue until the next licence exam. For further information please contact any club member or see [www.shannonbasinradioclub.com](http://www.shannonbasinradioclub.com)

The club took part in the recent two meters counties contest operating from 278 meters high Cairn (Corn) Hill in Co. Longford. Conditions were fair with the farthest county worked being Kerry.

We also took part in the SSB Field Day operating from the grounds of Garbally College, Ballinasloe, where the six hours was thoroughly enjoyed by all.

### Visit to Valentia Coast Guard station

On a recent trip to The Kingdom of Kerry, myself and two of my junior ops Hannah and Heather paid the Coast Guard Station on Valentia Island a visit. As can be seen from the photos the masts would entice any amateur to get a closer look! Inside, Dermott Farren showed us around and gave us a chance to hear some of the marine radio traffic on HF and VHF. A very interesting hour was spent there so a big thanks to Dermott and the Irish Coast Guard service.



*Dermot Farren (Coast Guard) with EI8IU junior ops Hannah (l) and Heather*



*The Masts at Valentia*



*A Plaque at the highest point on Valentia*



*Brian EI8IU (top) & Craig EI3FW operating from Cairn Hill*

## Renew your IRTS Membership

Use this link to renew your membership for another year

[www.irts.ie/renew](http://www.irts.ie/renew)

Payments are processed through PayPal's secure servers, and any credit card may be used

## Limerick Radio Club

### Simon Kenny EI7ALB

Limerick Radio Club activated Loop Head Lighthouse EI0009 again this year for the annual International Lighthouse and Lightship Weekend. Weather conditions were poor with wind and rain, and this, coupled with poor conditions, made it our most challenging event to date. As the weather continued to deteriorate it was decided to cease activity early on Sunday morning. Eleven club members attended at various times over the weekend, with a core group of five covering the complete event.

Two stations were operated using the club ICOM 756 PRO, Kenwood TS940S, Cushcraft A4S and two G5RVs. Total entities worked was 35 with 348 QSOs made. The Federal Republic of Germany topped the QSO table followed by England, Italy, Belgium and Spain. Three contacts were made with the USA and only one with Canada. Most QSOs were on



Liam EI7DSB and Simon EI7ALB  
in Loop Head Obs Room

20m SSB followed very closely by 30m CW. Logging was done on Log4OM.



### DX Féile Dave Deane EI9FBB

The IRTS-affiliated EI DX Group was set up in 2016 with a view to forming an EI DXpedition team and to increase DX activity in EI. Our 9N7EI operation in Nepal earlier this year, as reported in the Summer 2017 edition of Echo Ireland, was a great success and we are grateful to the IRTS for their generous support. Plans are already underway for next year's (2018) DXpedition and will be formally announced soon.

This October, the EI DX group are hosting a DX-Style Convention on Inis Mór, Aran Islands. The group is confident it will attract a lot of interest not only here in EI but also from afar. A great lineup of DX talks and DXpedition stories are planned and several international delegates have already pledged their support.



Between 40-50 attendees are expected for the weekend and no doubt a great social weekend will be had by all DXers present. See [www.dxfeile.ie](http://www.dxfeile.ie)

This 'DX Festival' named 'DX Féile' will be open to all, and not just to EIDX Group members, so everyone will be welcome. However, as numbers are limited, it is *strictly* a first-come first-served basis.

### Programme

#### Saturday 7<sup>th</sup> October 2017

- |               |   |
|---------------|---|
| 11:30         | Registration. Céad míle fáilte agus oscailt oifigiúil.                    |
| 12:00 - 12:45 | <i>Fascination of IOTA Extreme</i> by Cezar VE3LYC                        |
| 14:00 - 14:15 | CW Pile-up Challenge.   |
| 12:45 - 13:30 | <i>DXpeditions...One Million QSOs &amp; counting</i> by Nigel G3TXF       |
| 13:30 - 14:00 | Lunch   |
| 14:30 - 15:15 | <i>From Sea Level Saltees to Himalayan Heights</i> by Declan EI6FR        |
| 15:15 - 15:30 | SSB Pile-up Challenge.  |
| 14:15 - 14:30 | <i>Introduction to Baiyah Island, AF-111NEW</i> by Jeremy EI5GM           |
| 15:45 - 16:30 | <i>Solo DXpeditioning across Africa's rarest</i> by Kenneth LA7GIA        |
| 15:30 - 15:45 | Tea/Coffee break.   |
| 16:30 - 17:15 | <i>Operating aspects associated with IOTA expeditions</i> by Cezar VE3LYC |
| 17:15 - 17:45 | EIDX Group Presentations & Raffle.  |

**Dinner 20:00 (sharp) followed by Irish Trad band in the bar**





## Stockport Radio Society Visits Arranmore

### Peter Homer EI4JR

During the IOTA Contest on July 29th /30th 2017, Stockport Radio Society used the callsign EJ8KO for a Multi Operator, two-transmitter operation from Arranmore Island Lighthouse off the coast of Donegal.

Peter EI4JR and Tommy EI2HXB from the Carndonagh Amateur Radio Club and Ian MI1CCU from the Omagh Radio Club paid a visit to the island to see the contest group at Arranmore's Lighthouse while they were setting up.

Arranmore was the QTH for the Peak Contest Group G5O from the Greater Manchester area from 25 July to 1 August 2017, inclusive.

The primary purpose of the EJ8KO DXpedition was to be the Peak Contest Group's participation in the 2017 IOTA Contest that was held during the 24 hours from 12:00UTC on Saturday, 30th July. During the event, they operated both CW and SSB, in a 'multi-two' configuration for the entire 24-hours of the contest.

Arranmore is located off the northwest coast of Ireland. The island is located at IO55RA and the WAI number is B61 Donegal. The island is part of IOTA group 'Irish Coastal Islands' (EU-121);



*EJ8KO Team L to R: Carsten G0SYP/EI8KO, Kieron M5KJM, Evan M0TJU, Bernard G3SHF, Sara 2E0KVH, Tom M0DCG, Pete M1PTR*



*L to R: Tom M0DCG, Tommy EI2HXB, Kieron M5KJM, Ian MI1CCU, Sara 2E0KVH, Carsten G0SYP/EI8KO, Peter EI4JR, Evan M0TJU, Pete M1PTR  
Photo: Bernard G3SHF*







## 50 Years On, Whither Amateur Radio? Séamus McCague EI8BP

Leo EI8BR, a contemporary of my own, wrote in Echo Ireland March 2017 about his early days in amateur radio, the personalities in the Irish Radio Transmitters Society which at that time had 91 Lower Baggot Street in Dublin as a meeting point and his construction of a two-valve cw transmitter to get on the air. This article prompted me to reminisce on my own early days in the hobby. Like many at the time it began with a combination of constructing receivers and listening on the shortwave broadcast bands to stations from then exotic locations like Amsterdam, Vilnius, Prague, Tirana and Moscow. These stations all welcomed reception reports and I have a nice album of QSL cards from around the world.

Soon I became aware of amateur radio stations, a lot of whom used AM and could be received on a regular broadcast receiver. My interest in having an amateur station developed from there. I wanted to get a transmitting licence. I applied to join IRTS sometime in 1964/65. I say sometime because at that time joining IRTS was a long process. Applications had to be supported by two existing members which was easier said than done as I was living in the countryside and this was the age of “snail mail”. Then the acceptance process seemed to take forever.

Finally my membership was approved and I was issued the SWL identifier EI-215. I was very proud of this as it established me as a *bona fide* SWL. (More about this later.) I immediately had a few hundred SWL cards printed (courtesy of Guinness) and started sending them around the world. The return rate was a sharp contrast to that from commercial stations.

After attending classes in 91 Lower Baggot Street I applied to sit the Experimenter’s Licence Examination which consisted of a 12 wpm Morse test and an essay-type written paper. Again this process took some time but finally in July 1967, exactly 50 years ago, I was issued the call signal EI8BP “for the purpose solely of conducting experiments in wireless telegraphy”. I was permitted a maximum power of a modest 25 watts “measured at the anode of the valve delivering power to the antenna” within the 7Mc/s and 14Mc/s bands using A1. After one year of this “apprenticeship” I was able to apply for more bands, power and A3 and A3A.

Since then a lot has changed. Joining IRTS requires a simple downloadable application form. IRTS on behalf of ComReg organises twice-yearly licence examinations. Morse is no longer mandatory and new licensees have immediate access to all bands and modes at full power. IARU has participated in the formulation of new European Directives such as the EMCD and RED and their accompanying Guides. These set out clear protection for amateur radio and other services from mutual interference from both individual apparatus and fixed installations. The ability of amateurs to build, modify and trade radio equipment among themselves is protected.



### Where will amateur radio be in 10, 20, 50 years time?

When I mentioned to one of my non-radio friends that I was considering writing this piece he rather cynically said “Leave two columns blank and don’t worry about it. You won’t be around”. Amateur radio is changing. It is likely that in 50 years time it will be unrecognisable and may even have a different name but its core *raison d’être*, i.e., a radiocommunication service for the purpose of self-training, intercommunication and technical investigations will remain valid.

At the September 2017 General Conference of IARU there will be hot debate on how to ensure the longevity of our hobby and how to attract young people to participate. Opposite is a letter from G8GLM and reply from RSGB Director G0TLK reprinted with permission from the August edition of RadCom, the journal of RSGB, the IARU Member Society in the UK. It provides an insightful and imaginative view on how to consider these important matters.

Already Europe’s largest meeting of amateurs HamRadio, which is held annually by the German national society DARC in Friedrichshafen, shares the conference centre with Maker Faire Bodensee. An entry ticket gains entry to both HamRadio and the Maker Fair. What is noteworthy is the sharp contrast in ages at the two events.



*A Morse class in 91 Lower Baggot Street, late 1960s  
Pat Masterson (EI7BM SK) on the key*



## WE'RE MARKETING THIS HOBBY WRONG!

Ed Durant, DD5LP/G8GLM

... Good, I have your attention. Now let me tell you what I mean.

I hear these days in broadcasts, podcasts, social and print media, that to get into amateur radio, you if have to get a licence. This approach sells the hobby very short.

To be clear, I am not suggesting operating without a licence, rather that there are so many parts of our hobby where the licence is not mandatory. There are more of these parts of the hobby than you might at first think. Of course, you will all have thought of short wave listening, whether listening to broadcast or amateur stations but also think of the following;

- electronic education, design and construction
- software development
- contest logging
- Field Day tasks like erecting the tents and antennas and generally having fun with others outdoors
- antenna design, construction and testing
- equipment restoration or repair
- fox hunting
- supporting special events and sporting events (in non-operating roles)
- satellite and high altitude balloon tracking

I'm sure there's many more!

Historically, when there was a minimum age to take a licence, youngsters would join a radio club, become part of it and learn a lot about the hobby before studying for the exam. I would suggest such youngsters would know exactly what they were going to do once they got their ticket, unlike today when those who start with the exam are lost as to what to do after passing it and quietly leave the hobby. This is a real shame.

Even for non-teenagers who may be interested in the hobby, I believe clubs and the amateur radio press should promote the parts of the hobby that don't require a licence a lot more than they do. There is an obvious interest in electronic construction at the moment, proof is the number of expanding Maker movement groups.

Maker groups are not everywhere and someone seeking them may live near to an amateur radio club without knowing that electronic construction is part of our hobby because we don't publicise the wide field that amateur radio covers. Most clubs are fairly well equipped with construction tools and test equipment, for general needs, not only for RF related tasks. These are assets that clubs can use to attract new members.

There's no reason we can't have amateur radio clubs with members who are not licensed – they may become interested and get a licence later or they may stay non-licensed and have fun with, and support, the club or group.

Please *think* about this. When was the last time your club or group promoted all the 'non-operating' things that you do?

Bring some more variety into your club meetings, how about a club construction competition? Take a look around at all the equipment assets you have in the club or group that prospective new members could be shown how to use to build a small device of some kind or a simple antenna, or whatever you like...

And then PROMOTE, PROMOTE, PROMOTE!

Radio clubs and groups are more than just operators, they are much, much more.

*The Society is currently beginning a marketing strategy and plan; constructive ideas like these are very welcome indeed. They chime with Strategy 2022 and are an excellent example of the thinking needed – not 'more of the same' but something different.*

*We will shortly be arranging facilities for marketing suggestions and asking for volunteers for help in formulating RSGB plans in this area. Meanwhile, please send your ideas either through Have Your Say or to [marketing@rsgb.org.uk](mailto:marketing@rsgb.org.uk)*

**Alan Messenger, G0TLK, Director**



(First published in RadCom August 2017  
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There is a view that licences are a barrier to entry to the hobby. In Ireland we do not have a Novice licence. But the reality is that the debate has moved beyond Novice to Entry Level licences. Societies such as SSA, the Swedish National Society, and others are seeking IARU to take the necessary action to have a CEPT Entry Level Licence, as in CEPT ECC Report 89, officially recognised.

Already there are nets operating on unlicensed spectrum with CE marked equipment. In Germany, for instance, voice operation on 433MHz is permitted with a power of 10mW. PMR 446 nets are common in Europe and there is pressure to increase the allowable power to 5W. Could this be a way to

provide a taster of amateur radio? Rather like SWL IDs, should unofficial call signs, which do not conflict with existing ITU prefixes, such as E1 be issued so that net procedures can be practiced as well as the passing of EMCOM traffic. In addition radio orienteering could be developed on these frequencies.

I can recall that in the distant past IRTS had difficulties embracing SWL members who had a great champion in the late Tom Burns EI9AH. Amateur radio did not embrace the CB movement. Can it now afford to ignore the Maker movement or the potential of unlicensed spectrum?

## Tony Allen EI4DIB SK - An Appreciation

### Anthony Murphy EI2KC



The passing of Tony Allen EI4DIB, at the young age of just 53, has deprived the amateur radio community in Ireland of one of its most energetic and enthusiastic advocates, and has left his many radio friends in Ireland and abroad greatly saddened by his early demise.

Tony was extremely well known in the hobby through various activities and clubs, but he will probably best be remembered as a ham who helped other hams, and indeed for his wicked sense of humour.

His radio “career” began in the 1970s, when he was just a teenager. At an early age, he took an interest in all things electrical, and indeed his father relates how Tony would gladly volunteer when there were any electrical problems or issues with appliances in the house. He always wanted to learn about how things worked.

He became interested in CB radio in his early teenage years, and became known under the handle the ‘Badge Man’. One of his lifelong radio friends (and he had many) was Pat EI2HX, who relates how he first encountered Tony on the 11 metre band in around 1977 or so. Tony owned a 23-channel President CB and Pat had occasion to speak to him a few times on air. One day as Pat was driving along one of Drogheda’s streets, he saw a very unusual sight. A young gentleman on a bicycle was riding along with some sort of radio apparatus in the carrier of his bicycle, and an antenna attached. He was wearing a jacket with what appeared to be lots of badges on it. A few days later Pat and Tony had the “eyeball” QSO at Tony’s house, where Tony delighted in showing him the equipment. Yes indeed, Tony was the Badge Man, and it seems he was an early pioneer in ‘bicycle mobile’ radio activity!

Their local chat on the 11 metre band at that time was hampered somewhat by the propagation. Because they were using AM-only sets, the American skip was coming in very strong and often prevented the local QSOs from taking place.

Some of the other 11m operators had sideband sets. So Tony and Pat decided to give sidebands a go. But because they didn’t have sideband-capable equipment, they opted instead to “pretend” to go on sidebands. This involved both of them imitating the sideband noise, while making silly sounds into their microphones. Another 11m operator at the time told them that he had listened to them on sideband, but that he was unable to make out what they were saying!

And such it was with Tony Allen. He had a wonderful sense of humour, and didn’t take life too seriously. It was a facet of his personality that made him very popular with people. At that time, Tony’s lifelong willingness to help other radio enthusiasts became apparent. He had an SWR meter, a piece of equipment that most radio amateurs take for granted but that, back in the early 1980s, not a lot of CB radio users owned.

He would bring the meter to other CB operators and check their SWR for them and explain why it was important. “Spare” equipment, including plugs, coax and other bits and pieces, would be donated to others to help get/keep them on air. This is something Tony did throughout his radio life, right up to the time of his passing.

He also suffered his fair share of RF burns as a result of mistimed key-ups when helping others!

Having been on 11m for a number of years, Tony and Pat registered with the IRTS as shortwave listeners. Pat’s new SWL identification number was EI939. Tony’s was EI940. Around that time, Tony started to attend theory classes in Dublin. The amateur radio test was not a regular test back then like it is today. It had to be organised in conjunction with the clubs. Tony did three theory tests in the space of a fortnight in 1989 and passed all three. He got his amateur radio ticket in June of that year, and was given the call sign EI4DIB, the call he held for the rest of his life. Thus a whole new chapter of his life opened.

Soon after that he moved from Drogheda to Stonehouse, Dunleer, a terrific QTH for radio, and one he was to greatly enjoy on VHF. Of course, back in those days a B licensee had no access to the HF bands. But Tony was happy enough with what he had, and in particular the 2m, 4m and 6m bands. On 2m, he became one of the first EI stations to work all counties on FM. Because of his elevation, it is said he could work half the country just using a rubber duck! He enjoyed DXing from that location, and made lots of QSOs into continental Europe on 2m.

At one time, while beaming west, Tony heard what he was sure was a Canadian call sign, and an attempt was made at a QSO. However, as the Victor Alpha station came back to him, his signal faded out. Tony related how he thought this brief contact might have been possible as a result of aircraft scatter. It might not have qualified for the Brendan Award, but Tony always maintained that he had come close to making the first transatlantic 2m QSO.



He certainly made a QSO with the Russian Mir space station, on more than one occasion. One of these contacts was with the British astronaut Helen Sharman, who became the first woman to visit Mir in 1991. The QSL card confirming that contact was one of Tony's prized possessions.

But he never got so absorbed in his own radio activity that he wasn't willing to help others. Indeed, he would hop up on many a wall, or scale a roof, to do antenna work for other hams. As was often his form, he would bring some of his own spare parts to complete the job. In fact, I had direct experience of this on more than one occasion. The year I got my licence (2009), Tony arrived up at my house one day with a ready-made dipole for 2m. It came complete with stub, bracket, coax and plugs. He got up onto my roof and installed it at the chimney, and when he came back down again he drilled a hole in my shack wall so we could run the coax through. And he even soldered the plug onto the coax (a job I'm not so good at doing!).

That was the first time I experienced the wonderful humanity of EI4DIB. Even though payment was offered, none was needed. The only payment Tony would ask for doing these jobs was "a cup of coffee and a sticky bun".

A major part of the joy of this type of voluntary work was to help others to get on air, or to stay on air, and for Tony to have another ham on air to chat with. That was his reward. Several times over the years, Tony also acquired equipment through special deals for his ham community. I can remember when he got a lot of ex-PMR rigs and programmed them for 4m and distributed them to ten or twelve radio amateurs in the northeast, myself included. He had done this years previously when he arranged to purchase some Pye Olympics from GW0LIT in Wales and got them converted – with one crystal in each – meaning that they could be used on just one frequency. Tony also became well-known among the taxi drivers in Louth because he helped diagnose and fix problems with their radios and aerials.

He got involved with Skerries Radio Club EI2NCR when they held an activation at Ardgillan Castle and enjoyed the warm and friendly atmosphere that club members exuded. He remained a regular visitor to the club for years until his illness prevented him from going any longer.

He also started going to Dundalk Amateur Radio Society (EI7DAR) when the club was based in the old tax office in Dundalk, and was one of those who helped refurbish the club's new premises at Castletown Road when the club acquired it. Tony and Pat EI2HX were also instrumental in instituting the "tea, coffee and biscuits" at the Dundalk club, a tradition that continues to this day. During his two visits to Canada during the last decade of his life, Tony organised the twinning of the Surrey Amateur Radio Club VE7SAR in Vancouver with EI7DAR.

In the 1990s, Tony went back to studying radio theory, in order to be able to teach aspiring hams in Drogheda. He held classes in the town at the Holy Family Boxing Club at Ballsgrove and later at the O'Raghallaighs GAA club on North Road. He helped to get many hams through the theory test. He taught them what they needed to know to pass. In the days before computers and mobile phones, the materials that

Tony used were painstakingly collected and photocopied (often at his own expense) for this purpose.

Tony changed radios quite a lot over the years, and was known for a bit of "wheeling and dealing". In the eight short years I've known him, I've seen his shack change quite a lot. A radio would be bought and put in place in his meticulously organised shack. A few months later, it might be sold on so that something newer or better could take its place. Tony owned a lot of radios over the years, and this gave him a tremendously broad knowledge of all the different makes and manufacturers, such that he was able to pinpoint certain issues and faults with various radios for other hams. He had a brilliant ability to retain information. For instance, when I purchased an Icom IC-207 in 2016, he was able to tell me that I had previously (briefly) had one in my shack in 2009 – something even I didn't remember!

In recent years Tony was instrumental in helping AREN (Amateur Radio Emergency Network) to become established in the northeast. He brought several of the radio amateurs from this region to Dromineer for the AREN training there. He organised various types of training for us – including GPS use, message handling, map reading, etc, and several excursions were made which included a dummy exercise at Bettystown beach.

Dummy is the appropriate word because we had to locate a "casualty" and that casualty was, in fact, a mannequin! When we located the dummy, I mean casualty, it even had – written in permanent marker – a description of its injuries written on various parts of its body. Tony's sense of humour always came to the fore, and a few of us had a good laugh that day. There was another time when we were doing message handling at Clogherhead, Co. Louth, when Tony, with mischievous humour, decided to put us through our paces by including a "Doctor Miminini" in the message dialogue.

Tony also started an online blog about 4m, and updated it regularly. It got substantial traffic and featured lots of very interesting and diverse posts about a whole range of 4m and VHF-related activity. Towards the end of his life Tony also took an interest in HF, and enjoyed in particular using the PSK digital mode. Tony always said that the noise of HF didn't suit his ears and although he knew CW, he didn't actively use it because the noise would hurt his ears. One of the nice things about digital modes is that you don't actually have to listen to the HF noise, and can make QSOs with the



*Tony EI4DIB at the QTH of Thos EI2JD*



*Tony EI4DIB in AREN gear*

volume turned down. This would have suited EI4DIB nicely. With Tony, there would always be plenty of “slagging”. People would be spoken about. Slagged off. Made fun of. But it was all harmless humour, and not one of us was immune to it. However, in his defence, I would say that when it came to Tony’s turn, he was well able to take the slagging. He could give it and take it. He had a wonderful sense of humour, and had the ability to say outrageously funny things (even on air, where he pushed the boundaries more than once) and still hold a straight face.

Although radio was his big love, his greatest love was reserved for his family. His wife Madeline, daughter Rebecca, son Stephen and grandsons Kyle and Taylor, were the lights of his life.

Tony became ill in 2014 and was diagnosed with cancer of the bile duct. He had to undergo a huge operation and was seriously ill afterwards, spending several weeks in intensive care. But typically of the man, he fought bravely against the odds to make a recovery. About a year or so after his surgery he was making a resurgence in amateur radio and becoming a more frequent presence on 145.4Mhz FM, the chat frequency in the northeast, much to the delight of the local hams. He was also active occasionally on PSK on HF.

Following his second visit to Canada in 2016, Tony became ill again. The cancer had returned, and over time it became obvious that surgical intervention was not possible. Despite

this, Tony retained a stoic and staunch determination, and constantly reaffirmed his will to become well again. He remained active on radio, although with an occasional hiatus due to hospitalisation.

During his last stay at Our Lady of Lourdes Hospital, Drogheda, he kept a handheld transceiver in his ward. I visited him during that stay and he revealed the location of his radio – in a sock in his clothes bag! We enjoyed a great conversation that day. He was in great form, and didn’t seem to suffer the tiredness that had been apparent on and off. There was lots of slagging, about me, and him, and others, and at the end of it he shook my hand and told me how delighted he was that we were able to enjoy a few hours together.

The day he was released from hospital, when there was no more the medical professionals could do for him, EI4DIB was back on the air on 145.400. I had a QSO with him and was delighted to hear him on air. In typical form, he was still talking about getting better. As fate would have it, that was to be our last full conversation.

I visited him at home the following Monday to find that his condition had deteriorated seriously and he was now confined to bed. I saw him again on the Wednesday, and that day we spoke our last words to each other. As I was leaving, I gently tapped him on the hand and he woke. I said “I’m heading now Tony. See you soon. 73”. And he replied “73”. Fitting parting words for two amateur radio friends. I visited again on Friday, but he was asleep throughout. He passed away the following Sunday, June 18<sup>th</sup>.

A large number of his radio friends visited the funeral home where he was laid out, and indeed at his funeral. A tribute to Tony was read at the crematorium by his long-time friend Aidan GI7FHC/EI5KB.

At his funeral, I remarked to some of our mutual ham friends that Tony would probably be asking St. Peter at the pearly gates about where they served the coffee and sticky buns. I imagine he was also looking inquisitively at the gates themselves, perhaps suggesting to St. Peter that they would make a good ground plane for a VHF antenna! Such was the humour of Tony EI4DIB, a great friend, witty and mischievous, but with the very best of intentions.

Rest well, friend, until we meet again in the great shack in the sky. 73 old man *de* EI2KC and all your many, many radio friends.



DARC (The German Radio Club) will broadcast special shortwave programmes from Radio DARC during the IARU R 1 Conference in Landshut from September 16-22.

Radio DARC will report current news on the conference in daily special SW transmissions to keep the amateur radio audience up to date with news and background reports. The programmes in English will use several transmitters and SW bands to allow reception in different target regions of IARU Region 1.

17:30 - 18:00 UTC / 13775 kHz / 300 kW / for Africa  
 17:30 - 18:00 UTC / 9790 kHz / 100 kW / for Eastern Europe / Russia / Middle East  
 18:00 - 18:30 UTC / 6070 kHz / 100 kW / for Central, Northern and Southern Europe  
 18:00 - 18:30 UTC / 9540 kHz / 100 kW / for Western Europe (all frequencies preliminary)

*RADIO DARC is the weekly magazine of the German Amateur Radio Club e.V. for radio amateurs and shortwave listeners, with three broadcasts on 6070 kHz for Europe, at 0900 UTC on Sunday, and 1500/1900 UTC on Monday. The programmes contain DX news, technical features and reports from the DARC, as well as commentary, propagation forecasts and some great music from the 70s and 80s. See <https://www.darc.de/nachrichten/radio-darc/> (in German)*





## IRTS News Archives

### Joe Ryan EI7GY

#### Radio News Bulletins

Since February 1998, we have been archiving a copy of each weekly Radio News Bulletin on the society's web site, using a process devised by Leslie EI4DU and still in use. By the time the September Echo Ireland is published, we will have 1,000 news bulletins on [irts.ie/archives](http://irts.ie/archives) – the “IRTS News Bulletin Archives” page. These bulletins are sorted in date order on the Archives page, and show a list of headings for each week's bulletin: tap on the date to see the full text of that week's news.

[29-Mar-1998](#) Cork Radio Club AGM — Limerick Radio Club — IRTS AGM — Mayo Radio Experimenters Network — Ballymena Golden Jubilee — Worked All Ireland

[22-Mar-1998](#) International Marconi Day — Campbell Island ZL9 — IRTS AGM — Frank Lewis EI2VBV/W3JGM — EI Activity Day — Dayton Hamvention

[15-Mar-1998](#) Communications Technology in the Community — Limerick Rally — IRTS AGM — Marconi Centenary Celebrations — EI Activity Days — South Dublin Radio Club

[08-Mar-1998](#) EI Activity Day — Islands On The Air Contest — South Dublin Radio Club AGM — Club Annual General Meetings next week — Transatlantic Beacons — VHF Newsheet — Rallies

[01-Mar-1998](#) Silent Key — IRTS AGM — Club Annual General Meetings — IRTS Web Page — Blind & Disabled Group — Worked all Ireland activity — Rallies

[22-Feb-1998](#) IRTS AGM — Club Annual General Meetings — East Cork A.R.E.N. — Phoenix Rally — Marconi Lecture — Morse Testing — South Dublin Spring Challenge

[15-Feb-1998](#) New LF Band Authorised in EI — EI6GS on Radio na Gaeltachta — South Dublin Radio Club — South East Amateur Radio Group — East Cork A.R.E.N. — Trinity College Amateur Radio Club — DXCC News

[08-Feb-1998](#) City of Dublin A. R. C. : Sale of the late EI7CL shack contents — Coolmine Rally — South Dublin Radio Club — South East Amateur Radio Group — Dutch Contest — KD5CHF/VK5MIR Swaps places with KC5VPF aboard MIR — Spratly Island DXpedition

[01-Feb-1998](#) South Dublin Radio Club Spring Challenge — Coolmine Rally — Worked All Ireland — Sale of the late EI7CL shack contents. — IRTS Annual General Meeting — Enniskillen Rally — Searching for Intelligent Signals from Space

(sample from [irts.ie/archives](http://irts.ie/archives))

While the web site archive dates from 1998, the weekly radio news broadcasts date back to nearly 30 years before that. The first IRTS radio news broadcast was made on 19th January 1969 by Bill McIlwaine EI9F (SK) who read the news bulletin using AM. The same bulletin was broadcast on SSB later that day by Jim Bartlett EI2BB. The first news broadcast on VHF was made by Shane McNamee EI2A (SK).

These news broadcasts involve contributions from many members. In the first place, we rely on members and affiliated clubs to submit items for inclusion in the weekly scripts. Then the Radio News Editor (currently Mark EI6HPB) collates these contributions, circulates the script to the News Readers and uploads the script to the web server. The News Readers then make the broadcasts using the society's broadcast call sign **EIOIRTS**.

Pulling news items together, circulating the scripts and making the news broadcasts involves a significant commitment every week by a small group of dedicated volunteers. Items for inclusion in the news are often in short supply. While some clubs and individual

members regularly contribute news items, many others are not so forthcoming about their activities or plans – even though they may be quite happy to share their comings and goings on social media. Maybe some more members will take the hint?

The IRTS radio news broadcasts continue to be very popular and act as a regular meeting point for local radio amateurs. Indeed we also have a loyal following of overseas operators who call in to the HF transmissions. See [irts.ie/radionews](http://irts.ie/radionews) for full information about the society's Radio News Broadcasts, including a link to request a copy of the weekly news bulletin by email. And remember what we said about taking the hint! The address for news items is [newsteam@irts.ie](mailto:newsteam@irts.ie)

#### Publications Library

Over the past few weeks, thanks to contributions from Leo EI8BR and John EI8AJ, a lot of new material has been added to [irts.ie/library](http://irts.ie/library) our online library. This library now has over 220 newsletters from 1948 to 2000. The recent additions cover the 1960s, 1970s and 1980s and contain lots of fascinating insights into amateur radio activities in those years as well as some very interesting and useful technical material.

To whet your appetite, on the following page is a piece from the June 1974 IRTS newsletter (which at the time was called “VOX”).



## Joe Ryan EI7GY Reviews

### The Watch House - a novel by Bernie McGill

Having operated from Rathlin Island in 2008 and 2009 for the Islands On The Air contest, I was aware that the Marconi company had set up a wireless station on the island in 1898 to test the effectiveness of a wireless link at relaying details of shipping movements from the Lloyds station on the island to the mainland. Marconi's wireless equipment was based at the Altacarry Point Lighthouse, now called Rathlin East Lighthouse, which is where our IOTA contest station was situated.

A new novel by Bernie McGill, **The Watch House**, is a story based around the impact of the arrival on Rathlin Island of the "Marconi men" in 1898. The novel focuses on Nuala, who is married to the local tailor, twice her age, an arrangement she agreed to in order to secure a roof over her head. Nuala starts to cook for the Marconi men at Altacarry Point and you can guess what happens next ... yes, she starts to learn Morse code!

There is a lot more than Morse code in this book, including romance, villainy and tragedy. Many facets of island life are covered as the story twists and turns. One of the not so lovable characters in the story, Ginny (Nuala's sister-in-law) has little enthusiasm for radiocommunications and is quoted as saying " ... *it's not right to separate a person from their words, to put that much sea between the two. A body could say anything then and feel no responsibility for it.*" (Perhaps she could foresee that Marconi's experiments would eventually lead to Twitter?)

This is a well written story which I enjoyed reading. The descriptions of radio and Morse code equipment in the storyline may be an added bonus for a radio amateur, but they are incidental; this book is really about the inhabitants of an offshore island encountering the modern world.

Bernie McGill lives in Portstewart with her family and works as a Creative Writing facilitator. The Watch House is her



second novel and she has also written plays and published several short stories. The Watch House is available in paperback and on Kindle.

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#### "MOBILE MAD"

These words have often been used to describe some of our more active W.A.I. men and it was on the lips of many of the Dublin OPS when they heard of the planned bicycle mobile trip by EIs 2CA and 8CC. However, these comments only made the boys more determined to show what could be done using low power equipment and a little effort. Both operators had a week's holidays in the middle of March and it was decided that this was an ideal time for the trip! It was decided to build a small two valve TX and to borrow an EC1D from Peter EI7CC. Ever Ready were approached and very kindly offered to sponsor the power pack which was to be five 67½ volt batteries in series to give the H.T. and a 6 volt lamp pack for the L.T. The TX was completed two days before the start and the first test QSO was with a UB5. The TX was XTAL controlled on 80M and built completely from the junk box.

The two bicycles were loaded up and on a cold and windy March morning the boys set out. It was twenty miles to the first new WAI area and the boys did not turn up for their first or second sked. Then at the last sked of the day the WAI net heard a breaker and EI2CA/P called in with a 589 CW signal. From then on there was no stopping the two mad mobilers – with EI8CC navigating and EI2CA repairing the rig they cycled 125 miles in five days making over 150 QSOs from 25 WAI areas. The WX ranged from fine and sunny to snow and sleet which was only to be expected at that time of year. The pair returned with a sly grin across their faces. They had proved their point. What next you may ask? well plans are in hand for a trip by canoe down one of the rivers of the south east this summer – Mad, Mad, Mad.

*(reprinted from the June 1974 issue of the Society's journal "VOX" which is available at [irts.ie/library](http://irts.ie/library))*





## Home-Brewing a PCB

### Louis Ryan EI8KI

Having spent more years than I care to remember building radios starting with the Ladybird book "How to build a Transistor Radio" I have used wire wrap, vero board, Manhattan style – all of which work but the challenge has always been making the radio robust and reproducible.

In the electronics industry this has been solved and I decided to find a way of producing home brew PCB's easily and reliably.

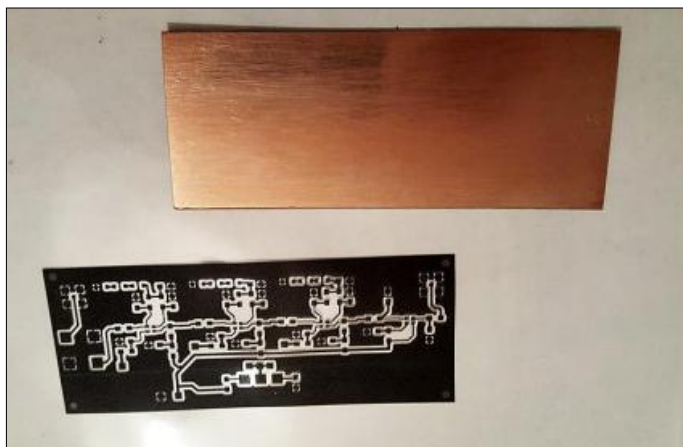
There are many ways of making PCBs with Photoresist board, PCB Milling Machine, and drawing the tracks manually with an etch resist pen being the most common. I tried these methods and the Photoresist board proved to be the best but was not simple.

I then read about laser printing onto glossy paper and ironing this onto a blank PCB. I tried this and got it to work but the results were poor. I was about to give up on this method until I tried transparent plastic sheets designed for laser printing on an overhead projector. I tested them and the results were fantastic. I could make PCBs in less than 30 minutes from start to finish and the method was reliable.

#### Here are the steps ...

**Step 1** Print out the PCB design using a laser printer onto the transparency paper. It must be a laser printer because the 'ink' for a laser printer is actually a type of plastic that deposited onto the paper. More on this in Step 2

Cut your PCB to the correct size and clean with a *Brillo* Pad.

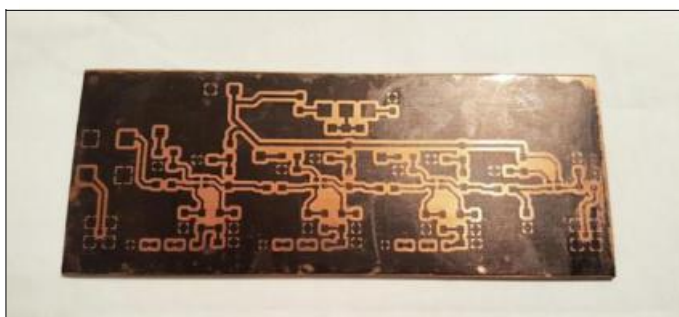


**Step 2** Place the transparency paper ink side down onto the PCB and using a standard iron at full heat (no steam) iron over the transparency. It is very important to do this making sure all the areas have been covered and re-ironed at least 3 times in every area. Spend at least 5 minutes ironing – who said hams can't iron?

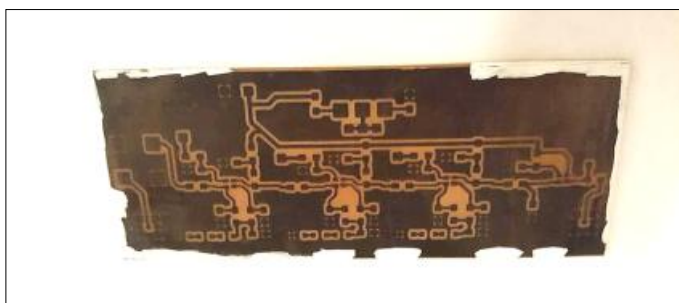
The plastic ink is remelted and will stick to the PCB. Gently start to peel off the sheet from the PCB and make sure the ink is sticking to the PCB as you peel. If some is missing you can re-iron that part and peel off again. This is a huge advantage

in using transparent paper – you can see if it is working and if not just re-iron that area.

**Step 3** I discovered that *Tippex* is also etch resistant so use it to fix any errors.



*The board after peeling off the plastic sheet*



*Tippex covers areas needing repair at the edges of the board*

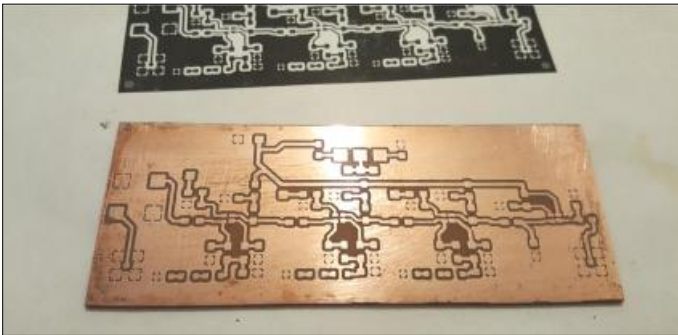
**Step 4** Etch using Ferric Chloride. This can take up to 30 minutes but if you heat the Ferric Chloride it will be done much faster. Ferric Chloride is highly corrosive. Make sure to observe necessary safe-handling and disposal practices.



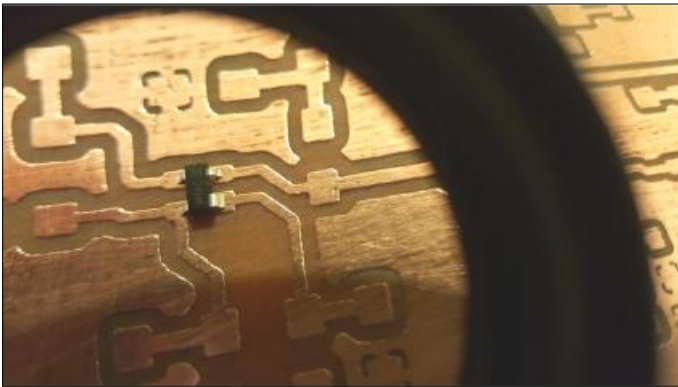


I am certainly ***not suggesting*** you do this, however I once microwaved the solution and the board was etched in less than 1 minute. Keep agitating the solution and checking the progress.

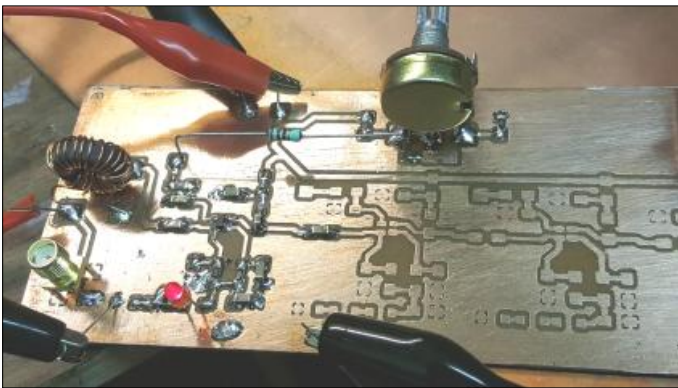
**Step 5** Clean the board using a Brillo pad and now you got a PCB.



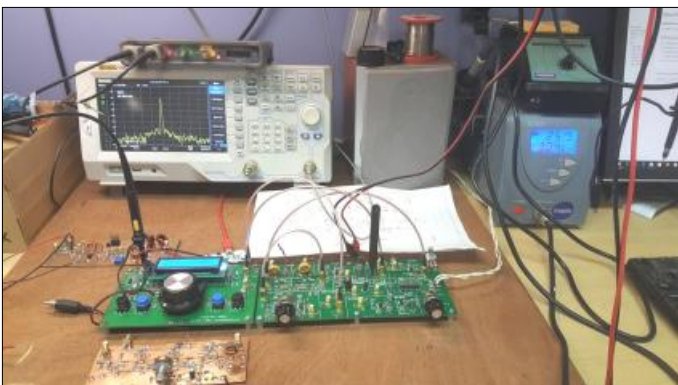
**Results** This is a magnified image of the PCB with the pads for a dual gate Mosfet.



Building and testing the board.



Testing with the Radio Builder Lab



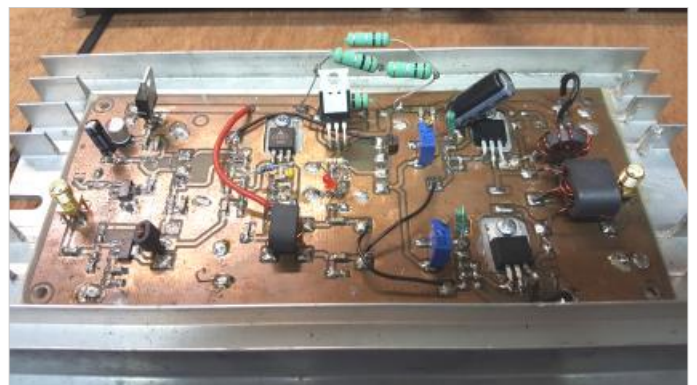
**And finally** If you take the time to learn how to solder surface mount parts, you have no holes to drill. It's faster to solder, common parts are almost free and most new components are only available in surface mount.

This method of making PCBs can also be used for larger and more complex designs. I have designed and built a "Radio Builder Lab" which I hope to describe in a future article.

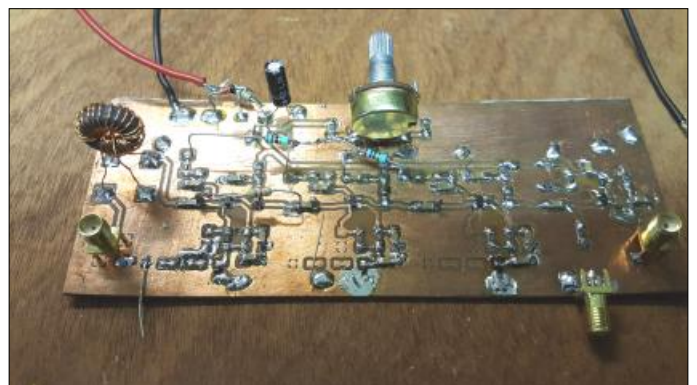
Below are some examples of the many circuits I have designed and produced PCBs for and used the 'Lab' to help test and improve them. Shown are a 5 Watt RF Amplifier, 60 Watt RF Amplifier and an IF Amplifier using dual gate MOSFETs with variable gain.



*5 Watt RF Amplifier*



*60 Watt RF Amplifier*



*IF Amplifier*

### New Postcode

Remember to include the new  
postcode in your address when contacting IRTS  
[memrecords@irts.ie](mailto:memrecords@irts.ie)





# HF Happenings

## Mark Bannon EI6HPB

radio@paddyproject.com

As usual I wish to offer a very warm welcome to all of the readers of this edition of HF Happenings, both licensed amateur operators and SWL alike.

Since the last publication of Echo Ireland a lot has happened on this end. I have recently become heavily involved in the elmer/mentoring end of things. Over the past few weeks I have provided various levels of training to over one hundred new people in preparation for their license exams. In addition to all of this I became the IRTS weekly radio news bulletin editor, was made the chairman of a local club and also took on a new employment role.

Ironically none of the above have affected my ability to operate on HF both during weekdays or weekends. What actually did prevent me from working a lot of rare/exciting DX stations was really down to one simple fact: Bad propagation conditions. That was the big factor unfortunately.

Sadly due to the shockingly poor propagation conditions of late, it nearly didn't really matter what sort of high quality antenna system anyone had installed at their QTH. Very few of us could hear much. It was exceptionally difficult to build up sufficient QSO numbers to brag about in any significant detail on this one occasion for this article. I just couldn't get to work many rare DX stations over the past few weeks no matter how hard I tried. This however is not to suggest that I didn't find other ways of keeping myself heavily involved in all things HF.

As a result, for this edition of HF Happenings I decided I would like to depart from the norm a tiny little bit. Instead of talking about rare and uncommon QSOs which I wish I had managed to make during the past three months, I would instead like to share with you something else which I feel you might find interesting.

Two weeks ago I was invited by a few friends to attend a quite large event in England they had organised just on the outskirts of Coventry. It was a "working holiday" of sorts for me. My flight over there was early morning on a Saturday. Arrived in Birmingham at about 7:45am. Then was brought by car to Coventry by one of the organisers. Between the two days I spent a solid nearly 25 hours talking to lots of fellow hams (and lost my voice as a result). Of course after listening to me for that long, many people felt that my lost voice was a blessing in some regards I'm sure ;-). The reason I say it was a working holiday for me was because during the event I helped with the training of some of their new members over there. The brilliant thing about meeting a lot of people in events such as these is that you can compare notes and learn little tips and hints from each other.

During that weekend I ended up meeting quite a few hams who were extremely involved in home brewing/self-construction and QRP.

I enjoy a bit of QRP the same as the next person, although normally I must admit that I tend to work the bands using about 55 or 66 Watts on average. So even though I am not



*Ex-Military HF Transceiver*

one of these people who likes to use 100W too often, I still am high enough in terms of power.

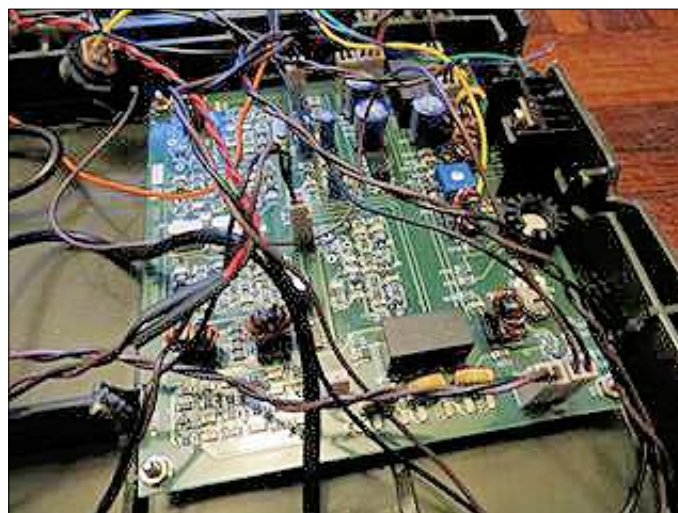
All of this chatting with so many QRP operators in a short space of time really got my imagination going into over drive.

Within the shack here there are a few old pieces of military radio memorabilia. One of these is a HF transceiver with just two power settings: High (30 Watts) and Low (3 Watts). In a world where you normally hear a lot of people using 100 Watts or more, what could Three, Five, Seven or even Ten Watts actually do? Would it be enough for SSB voice for example? The answer is yes and it can potentially work really well in fact!

### Introducing the BitX40

This is impressive for its price. It is quite a good HF transceiver if the truth be told. It comes as a kit, so you have to assemble some of it yourself, but don't let that scare you off, its a lot more simple a process than you might initially imagine.

Developed by an Indian ham Ashhar Farham VU2ESE, it certainly does the job it was made for. This is certainly not his first attempt at making a cheaply priced HF kit. He has been working on this mission for a long number of years and it is an absolute credit to him that he has managed to produce such a fine design.



*BitX 40 Board under construction/test*

As the name suggests the BitX40 is a 40mr single band transceiver; however yet again don't let this put you off you, it can actually be modified to allow greater reception with a little bit of "out of the box" modification/tweaking. Please don't picture this as a radio with advanced filtering, etc. It is very much "no frills", low power and a voice only radio. Yet again though with a few tweaks/changes, effort and time you can get it to work with digimodes.

Rated at about 10 Watts, it seems to be more closer to 7W but that doesn't matter too much. I already have bought a few of these now for myself. One for the house, one for the shack out the back garden, another for the boot of the car, etc.

I have one in the boot so that I can park out in the middle of the countryside away from the shack and erect up a temporary 40m dipole on a telescopic flagpole mast (supported upright with a flat sheeted metal holder/bracket which I drive the back wheel of the car over in order to keep it in place).

Even though the BitX is only about 7 Watts, with this radio both myself and a few friends have been able to work a good few stations across Europe using decent antennas.

Considering that one of my friends, Carl, over in Wales uses a 5Watt Yaesu FT-817 with a homemade magloop and can work a vast array of stations no problem. If he could use 5W then why couldn't the 7W BitX do a decent job of it too?

Of course I intend now to take this whole BitX experimentation a little further (getting a little bit more adventurous with it). It is still proving to be a little bit of a

learning curve each time I make a small modification but I believe in the long term I will end up with a very nice customised/homebrew radio.

Initial assembly is rather simple and seems a good way for new hams to get into the idea of homebrewing. It could even be said that the manual assembly is "childs play" so long as your ok with using a soldering iron.

For just a little over \$59 (plus customs import duties) you can end up with a working 40m transceiver. You are basically supplied with everything you need except a case and a speaker (both of which are very easy to pick up in even a local pound shop).

They supply a number of circuit boards, potentiometers and thin jumper wires in this kit. One thing I love about it is the fact that there is an Arduino board included which is connected to an oscillator circuit. The Arduino has a USB port so that you can reprogram it to add greater functionality to the basic unit. For example you can add an S-Meter if you like by just changing a few settings. There are a few other modifications you can make to the software and its settings which can improve the overall functionality; its just a matter of really what you want your BitX to do for you in the end.

There are however a few minor issues I would like to point out or suggest to everyone contemplating buying one. The antenna connector supplied is a BNC bayonet type. I changed mine over to SO239 as very few of my antenna feedlines are setup for BNC. Also the wiring supplied with the kit for connecting the BNC to the board is perhaps a little lightweight for my own liking. I saw where someone else on the internet had come up with the idea of swapping these out with some RG58 which I thought was a great idea and had no problem in copying.

The wiring coming from the board to the tuning knob and volume control are a bit messy. I ended up putting some tape around them but later realised that a better approach would have been to use some heat shrink tubing to make them up a bit neater (after all it wouldn't be good to have a load of random "mini antenna" floating around inside the box).

My latest addition to this mini new portable station in my car boot is actually in the form of an old ex-military recycled German hand-grenade case. I have put into it a wide range of additional components to work with the BitX



*Carl's magnetic loop antenna*



*The BitX enclosed in an ex-military case*



and my laptop. For example a 4-way USB hub, voltmeter, ammeter, basic digimode interface (still have to get it to work exactly right to my liking though. Its a work in progress). The next addition I want to make to this case is perhaps the inclusion of either a small power supply unit for when I want to run it off the mains or even perhaps might put into this case a small linear amplifier (after all its always best to be able to increase your power up a tiny bit if you find it necessary for working someone).

I hope that this article has encouraged some more of you out there to consider trying to construct some HF homebrew radios of your own using a simple kit such as this one. For

\$59 I find it very hard to argue with the price. Considering that the toroids in this radio have all been HAND WOUND, for around \$59 it is impossible to ignore as an option for your QRP needs.

Home-brewing is a very satisfying and rewarding aspect of amateur radio. I promise you that the hours of fun involved can be quite a thrill, especially when in the end you have a fully working transceiver to show for it. So if you haven't already, why not try it yourself?

73 until next time  
Mark EI6HPB

## Upcoming DXpeditions

A good number of interesting DX stations will be on the air in the next few months.

A selection of these are listed below.

**E6 NIUE ISLAND** E6AG will be QRV from 14<sup>th</sup> – 25<sup>th</sup> September. Operator is VK5GR and it will be holiday-style as he is on vacation with his family. QSLs go via Club Log OQRS to M00XO.

**JW SVALBARD** JW/OM6TC will be on from Longyearbyen from 15<sup>th</sup> – 20<sup>th</sup> September. QSL to his home call.

**A2 BOTSWANA** A group of 3 Russian amateurs will sign A25BI, A25SP and A25BE from Kasane in north-eastern Botswana. Dates are 15<sup>th</sup> – 25<sup>th</sup> September and they hope to be on all bands 160 – 6m CW and SSB.

**5T MAURITANIA** A number of Czech operators will sign 5T5OK from 16<sup>th</sup> – 28<sup>th</sup> September. They will run 100w on SSB, CW and RTTY. QSL manager is OK6DJ and logs will be uploaded to Logbook of The World.

**XT BURKINA FASO** XT2AW will be on the air again from 28th September until 30th October. The operator is Harald DF2WO who has aired this callsign on several occasions. Look for him on 40 - 10m CW and SSB. His QSLs are ably handled by M00XO.

**H40 TEMOTU** The well known DXpeditioner Stan LZ1GC returns to Temotu Province this year from 30th September until 20th October. He will reactivate his H40GC callsign with the focus on the low bands. QSL info is via Club Log OQRS.

**VK9X CHRISTMAS ISLAND** and **VK9C COCOS-KEELING ISLAND** Members of the South Pacific Contest Club will operate from both these islands during October. Firstly look for VK9XI from Christmas Island from 3rd - 10th October followed by VK9CI from Cocos-Keeling Island from 10th - 17th October. QSL manager is M00XO.

**A5 BHUTAN A52SJ** will be QRV from 12th - 19th October. This is Stephen N6SJ who will concentrate on 160m CW. QSL via Club Log OQRS.

**S2 BANGLADESH** Two IOTA islands will be activated during October by a group consisting of G3KHZ, G4EDG, SM6CVX and DL6KVA together with local amateurs S21ED and S21TV. From 15th - 18th October they hope to be on Bhola Island (AS-140) followed by St Martin's Island (AS-127) from 21st - 25th October. Callsigns will be announced nearer the activity date.

**VK9C COCOS-KEELING ISLAND** Another chance to work this DXCC entity will arise when GM4YXI and GM3WOJ make a return visit as VK9CZ. They will be there from 22nd October until 6th November and will participate in the CQ WW SSB Contest at the end of October. QSL manager is N3SL.

**EL LIBERIA** IOTA chasers will be queueing up to work this brand new IOTA reference of AF-111. The location is Baiyah Island and the callsign will be 5L3BI. It is hoped they will be on the island by 31st October and the expedition will last three days. Of added interest is the fact that two of the operators are our own Dave EI9FBB and Jeremy EI5GM. QSL manager is M00XO.

**VK9M MELLISH REEF** VK9MA will be the callsign of a multi-national team who plan to be QRV from 3rd - 16th November. Mellish Reef is in the top 30 most wanted DXCC entities so pileups are expected. QSLs go via Club Log OQRS.

**9U BURUNDI** Members of the Mediterraneo DX Club will be travelling to Burundi for their next DXpedition. Look for 9U4M to be on the air from 6th - 17th November.

**J5 GUINEA-BISSAU** The Italian DXpedition Team have announced Bubaque Island (AS-120) as the location of their DXpedition. The callsign will be J5T and dates are 13th - 25th November.



# Receiver Test Oscillator

Gerry Kavanagh EI8DRB

gerryk.com

I have previously talked about the highly informative blog run by *DuWayne Schmidtkofer KV4QB*. He often publishes board designs which he is happy for people to reproduce using their PCB house of choice. In the past I have built his *Scalar Network Analyser*, which has proved to be invaluable when tuning filters and building antennas. He has another project that I thought would be a very useful tool to have for any radio amateur interested in building their own rigs. This is his take on a receiver test oscillator. The idea behind this is that it generates a signal at a known level, or often a number of levels, so that a receiver may be aligned. He has taken inspiration from both Elecraft and NorCal projects, and the result is his S9 Signal Generator.

As with most of KV4QB's projects, he doesn't provide a kit or boards, just design files, so my first task was to download the provided EagleCAD files and convert them to Gerber format. I use Gerbers because they are accepted by many of the Chinese PCB houses, who tend to be substantially cheaper than the US based houses like OshPark. I have used SeeedStudio and DFRobot in the past, but decided to try a newcomer, PCBGogo.

The conversion process involved opening the EagleCAD file using EagleCAD, and then using the CAM (Computer Aided Manufacturing) tool to generate layer files which represent each stage of the manufacturing process. These layers define board dimension, copper tracks, solder-masking, pad-tinning, silk-screened legends, drills and plate-through & vias. Once these have been generated - I used the *gerb274x* CAM tool for the layers, and the *Excellon* tool for the drills - the files are combined into a single *zip* file and uploaded to the PCB order.

When ordering, it is possible to select a number of options: board thickness, solder-mask colour, substrate type, controlled-impedance. In my case, I selected a red solder mask and 1.6mm FR4, both of which were no-cost options. About a day after sending the order I got an email notifying me that the designs had passed their design-rule acceptance, basically a statement they the boards make sense at a



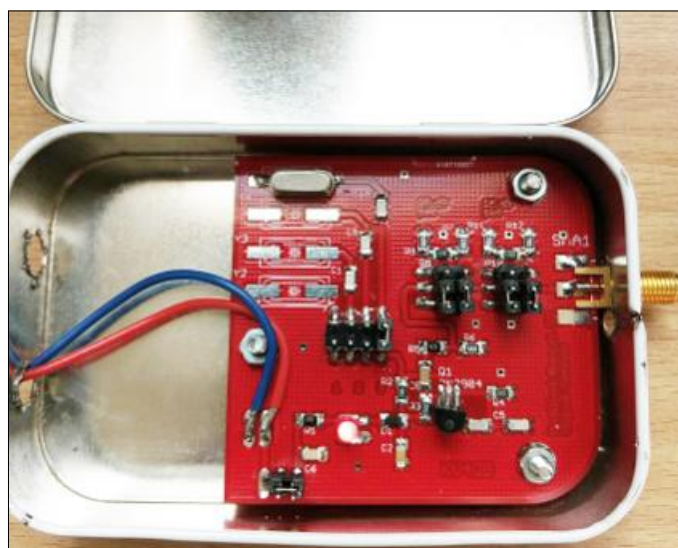
mechanical level - there are no holes outside the board, and so forth. About two weeks later, I received my order. While waiting for the boards to arrive, I used DuWayne's schematic to create an order from Farnell for the parts I didn't



have to hand. I often order SMDs in 10x rather than one-off quantities, since the unit cost is much lower like this, and you get a bunch of components to bulk out the parts-box. The parts arrived in due course, actually the following day, with Farnell's usual free shipping.

My first task was to find a suitable enclosure... the boards are designed to fit in an Altoids tin, so I rooted out one I had used for a previous project. It needed a little tidying up, but once that was done looked perfect. I marked out and drilled the various holes I would use for mounting and passing the SMA RF port through (*above*).

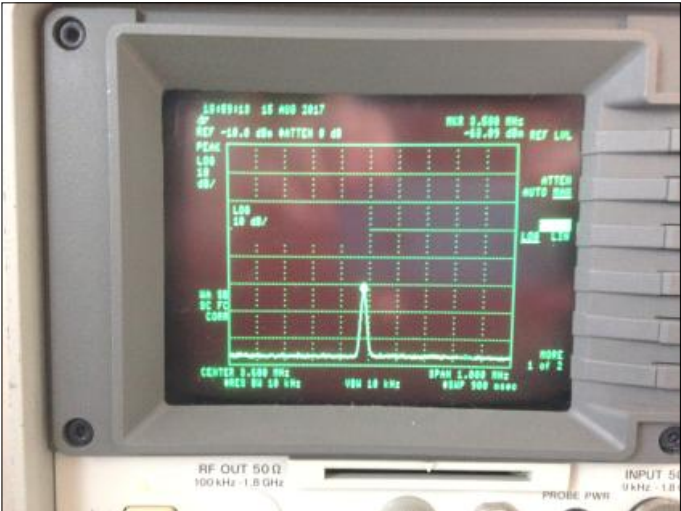
Soldering the components was a very quick and painless process. DuWayne generally specifies larger SMD components. In this case, 1206 size, which are about 3.5mm x 1.6mm, so by SMD standards, huge. Where through-hole components are used, rather than having holes, the PCB has



larger pads, allowing me to bend the leads at a right-angle and solder them in an SMD manner also. The circuit is a relatively simple one. It has 4 crystals, or at least provision for four. I only had one to hand, but an order with GQRP will soon rectify that. The crystals feed to a



selector, which is basically a dual-row header which uses a jumper to select the crystal. This then feeds a simple oscillator based on a 2N3904 NPN, which in turn feeds to two switchable selectable pi-attenuators, with the attenuation levels being -14dB and -20dB respectively. These are also selected or de-selected through the use of jumpers. The



Signal on Spectrum Analyser

design should generate signals at around S0 and S9 with -14dB and -20dB as intermediate levels in between.

When I initially finished the build, I plugged it into my Spectrum Analyser, and where I was expecting a spike saw nothing. I visually inspected the board, and being a simple circuit was able to verify it pretty quickly. The only other possibilities were the transistor and diode which when tested with a multimeter also proved OK.

So these were not the only possible culprits ... maybe the crystal was faulty. I had another crystal I could use, a colour-burst crystal I had received from Bill M0HBR a few years back. It was currently doing duty in a Michigan Mighty-Mite 80m CW transmitter, but a few seconds with a soldering iron soon liberated it. I soldered it in place and at last had my signal visible on the Spectrum Analyser. The 'S9' signal shows up at ~-65dBm, which is about what is expected.

I then plugged it into the antenna port of my ICOM IC7300 to see what it made of it. Sure enough a nice clean signal at



S8 signal on ICOM IC7300



S0 signal on ICOM IC7300

about 3.59MHz at about S8. With both attenuators in place, it showed an S0 signal – perfect.

Many thanks to DuWayne for yet another enjoyable and useful project.

Links

- <https://gerryk.com/>
- <https://kv4qb.blogspot.ie/>
- <https://www.pcbgogo.com/>
- <https://www.autodesk.com/products/eagle/overview>
- <http://soldersmoke.blogspot.ie>
- KV4QB's original project write-up:
- <https://kv4qb.blogspot.se/2015/11/s9-signal-generator.html>

R1	3K9	1206	1100206
R2	10K	1206	2073878
R3	15	1206	2078989
R4	20K	1206	2057774
R5	470	1206	9240489
R6	56	1206	2057808
R7, R9	62	1206	2307801
R8	240	1206	1100174
R10	120	1206	1576617
R11, R12	75	1206	2057810
C1	33pF	1206	2320894
C6, C7, C8	0.01uF	1206	1759350
C5, C9, C10	47pF	1206	2295749
C4	10pF	1206	2320889
D1	1N4148		1621821
Q1	2N3904		2295749

Farnell Bill of Materials (BOM)



## Excerpts from the HX files

### Pat Fitzpatrick EI2HX - Excerpt 040

*Hello and welcome to Xtract 040 of the HX files.*

In this issue are details of a couple of small kits made for some portable use. The ideas for these projects came about over a few pots of tea with the late Tony EI4DIB. Even until near the end Tony was always planning something radio-related, be it an event or a coffee morning. Late last year during one of our talks Tony talked about having a contest; having a “go bag” and making it AREN related. The “Go Bag” did not have to be a bag *per se* as it was only a term; the bag could be anything that would help a portable setup - ideas like a handheld, a mobile in a box, an aerial setup such as a telescopic pole and a small aerial, be it a beam or vertical. As mentioned earlier in this article are a couple of ideas I had for the contest, and don't be surprised if you see a few more in forthcoming issues of Echo Ireland from other AREN North East members.



*Photo 1 Kit 1*

#### **Kit 1**

Over a couple of weeks a few items were bought for the first “Go Bag”; a bench, small step ladder, and lastly a small table. I'd buy one item and think it was perfect for the job and think of ways to make the project and draw out the layout and on another day's shopping I'd see something else and “that” would definitely do the job. So the third definite item, the table was used. Perhaps you, dear reader, won one of the other items at the raffle at the IRTS AGM in Dundalk earlier this year. Those of you that can screw a screw into wood or bend a bit of metal should have no problem making this item.

This “Go Bag” contained a radio, battery and a mains power supply. The battery could keep you going for a while and the mains power supply was added as the setup, ideally, could be near a source of mains power. The mains power can be used to charge the battery, if you have mains power on site.

The radio, battery and power supply were laid out on the table the way I wanted them within the area I had to play with and then they were screwed or bolted to the table, either using



*Photo 2 Kit 1*



*Photo 3 Kit 1*

its own bracket or making a strap to hold the items down on the table (see Photo 1 above) In use (Photo 2), it could be a bit top heavy depending on the ground so a couple of brackets were repurposed and some fine twine added to it to act as stays to keep it upright. Allowing for the possibility of rain during an event, (as I finish off this article rain from storm Gert is falling) a temporary hood was made from some mesh sheeting in stock. The sheeting was cut and bent to fit and then covered in some clear adhesive tape that can be seen in Photo 3. In time, some Perspex will be used to make a hood but for now the mesh will more than do the job. The bag for transporting the “Go Bag” around was made up from trebling up some bin bags to keep it clean and dry and, who knows, if I can get some leather from the back of a sofa at the local recycling centre some sewing could be done to make a better wearing bag.





Photo 4 Kit 2



Photo 5 Kit 2 showing battery and fuses

## Kit 2

This project was made some time ago, as having seen the commercial versions of this project with a radio, battery and power supply / charger combined it was decided to use a few stock items and give it a go.

It was working for a couple of years with no problems but it was getting to the point that the charge on the old battery was not lasting too long so a new battery was bought. The case for this project was a used case bought at a rally and it was a nice size and might come in handy with a new front and back panel (Photo 4).

As you can see in (Photo 5) there is no shortage of fuses (better to have too many than not enough), one pair for the radio and the other pair for the battery charging.

When charging the battery you can charge from either the car or from home, as the unit has a 2.5 mm socket installed in the back panel. Inside the case is a small speaker and the front panel has enough holes in it so there is no problem hearing the radio. The radio's own internal speaker is not the best and

its sound can get lost in a noisy situation. In Photo 2 you can see the finished unit with the radio bolted to the top of the case; you might be able to make out part of the carry handle under the microphone. Not seen in the photos are some rubber blocks and a couple of cable ties that are used to wedge and hold the battery and speaker into place as there is not a lot of room in the case to start with and any brackets I tried to fit were getting in the way of something else.

## Epilogue

As you can see there is not a lot of hardship in making these couple of projects. The radios used were a couple of ex-PMR radios. To save you squinting to make out the radios and if you really *really* must know, Kit 1 is a Kenwood TK-7180 VHF and Kit 2 is a Yaesu VX 2000V 4-channel radio.

73s Pat

## Radio News Bulletins and Readers

### Sunday

National	1100	7.123	SSB	Sean EI7CD, Paul EI2CA
Dublin	1145	145.525	FM	Tony EI5EM, John EI7JG, Frank EI6EF, Liam EI3HK
National	1200	3.650	SSB	Sean EI7CD, Eddie EI3FFB
Mayo	2100	145.600	FM	Padraic EI9JA, John EI7FAB,
				Jimmy EI2GCB, John EI8GIB, Dominic EI9JS
Tipperary	2030	145.450	FM	Tommy EI2IT, Ronan EI4KN

### Monday

Cork	2000	145.750	FM	Vincent EI7HN
Limerick	2000	145.725	FM	Brian EI9AL, Simon EI7ALB, John EI5HDB, Harry EI2KL
Louth	2000	145.675	FM	Anthony EI2KC, Jim EI2HJB

### Tuesday

Waterford	2130	145.650	FM	David EI6GVB, Sean EI2HZB, Mark EI7IS
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# Contest News

Joe Ryan EI7GY

[contestmanager@irts.ie](mailto:contestmanager@irts.ie)

## IRTS Contest Results

### Field Days

Field day contests were designed originally to test and encourage the emergency preparedness of radio amateurs. Nowadays there are more effective ways of maintaining emergency communications capability (e.g. AREN, the Amateur Radio Emergency Network, have a year-round programme aimed at developing their proficiency in this area) so field day contests are as much about 'radio sport' as competency in back-up communications. Part of the 'sport' for field days is the challenge of setting up an effective station in a temporary location using a portable power source and antenna.

The IRTS **CW Field Day** on the first weekend of June runs alongside "IARU Region 1 CW Field Day" run by DARC as well as other similar contests run by RSGB and USKA. This means that there is always plenty of activity on the bands. 4 EI portable stations (including two club stations) took part in this year's contest; while this is a small number of entrants, it is not out of line for our size with the numbers of portable stations participating in other countries (DL : 76; G : 36; HB9 : 11).

Our **VHF/UHF Field Day** (first weekend in July) coincides with VHF and UHF contests in the UK and a number of continental European countries although, from an EI perspective, UK stations provide by far the greatest number of QSOs and points. EI9E/P (Network Southern Area Radio Experimenters Club aka. "Wexford VHF Group") set up stations in Wexford on all 5 bands from 50 to 1296 MHz.

In the single-band section, there was one station in Kilkenny and two in Wicklow on 144 MHz, also one station in Mayo on 1296 MHz. The distances achieved for VHF and UHF were quite significant: the results page on the web site shows "best DX" for each station. I should mention that both Albert EI6KO and myself were using Yaesu FT-817s (5W max.) and simple antennas, so equipment needs for this contest can be fairly basic.

The Wexford VHF Group also enters the equivalent RSGB contest and were the highest scoring station in the 50 MHz and 70 MHz sections of the RSGB's "VHF National Field Day", well done!

### HF Daytime Contests

In the Summer 2017 issue of Echo Ireland I referred to the difficulties experienced during the May 40 Metres Counties Contest when local propagation was almost non-existent. I suggested that one option was to include overseas DXCC entities as well as EI/GI counties as multipliers for EI/GI stations. There has been no negative feedback to this suggestion, so I propose to implement it immediately, to apply to the 40m contest on 8th October. Although the dip in critical frequency that affects propagation on 40m is less likely to affect propagation on 80m, it makes sense to have the same rules for all of our daytime HF counties contests. Hence, in the New Year's Day 80m contest, EI/GI stations will have overseas DXCC multipliers in addition to EI/GI

counties. See [irts.ie/contests](http://irts.ie/contests) for the new rules.

### UKEICC Contests

Following a break for the summer months, the 80m UKEICC contests resume in September, with SSB on the first Wednesday of the month and CW on the last Wednesday. These one-hour contests (from 20:00 to 21:00 UTC) have always been well supported by EI stations. The UKEICC group also runs two worldwide contests every year, the only worldwide contests with EI and GI counties as multipliers. The next UK/EI DX contest (SSB) runs for 24 hours from 12:00 UTC on Saturday 30th September.

### 2018 Contest Calendar

The calendar for next year will be published during October. It will be largely the same as this year's, except the 2 Metres Counties Contest previously held in late August will be moved to September (probably the second Sunday in September) to move it away from the traditional holiday weeks.

### Forthcoming IRTS Contests

**SSB Field Day** – Saturday/Sunday 2nd/3rd September  
13:00 UTC (24h or 6h)

**40m Counties SSB/CW** – Sunday 8th October 12:00 UTC  
(2h)

**80m Evening Counties Contest SSB/CW** – Tuesday 14th  
November 20:00 UTC (1h)

### Links

Contest rules & calendar: [www.irts.ie/contests](http://www.irts.ie/contests)  
Contest results: [www.irts.ie/results](http://www.irts.ie/results)  
UKEICC: [www.ukeicc.com](http://www.ukeicc.com)



## Your Society Needs You!

We are pleased to announce that Mark Bannon EI6HPB, in addition to producing the HF Happenings column in Echo Ireland, has assumed the position of Radio News Editor. Thanks Mark!

This edition of Echo Ireland is the last one that will be produced with Aidan EI7JC as Editor. The President and Committee would like to thank Aidan for his Trojan work as both Radio News Editor and as Editor of Echo Ireland.

A new editor is **urgently** required to produce the Winter/December edition of Echo Ireland. Other members of the Echo Ireland production team have also indicated they will be stepping aside in the near future and will need to be replaced.

If you would like to edit the society's journal or can contribute your desktop publishing skills for the benefit of *your* society please contact *Gerry EI8CC* or *Séamus EI8BP* to get more information.





Paul Gaskell G4MWO, Editor of The 5MHz Newsletter, sends regular reports on the implementation of the WRC-15 resolution re 5MHz operation.

In the past few months Jamaica, Cyprus, Belize, Philippines, Canada, Estonia and Kenya have joined the ever-growing number of countries operating on this band. Further information can be obtained on the RSGB 5MHz page where there is a link to the Newsletter.

The WRC 5MHz band is available automatically to amateurs in EI. Operation on spot frequencies (some of which differ from those in the UK) for temporary/experimental purposes may be obtained by special application to ComReg. See Amateur Station Licence Guidelines Document 09/45r3



Limerick Radio Club at Loop Head

## EI DXCC Single Band Status as at 1st September 2017

Compiled by Joe Ryan EI7GY

		160	80	40	30	20	17	15	12	10	6	2
10	EI2JD	160	80	40	30	20	17	15	12	10	6	
10	EI3IO	160	80	40	30	20	17	15	12	10	6	
10	EI7BA	160	80	40	30	20	17	15	12	10	6	
10	EI9FBB	160	80	40	30	20	17	15	12	10	6	
9	EI2GLB		80	40	30	20	17	15	12	10	6	
9	EI6IZ	160	80	40	30	20	17	15	12	10		
8	EI6FR		80	40	30	20	17	15	12	10		
8	EI7GY		80	40	30	20	17	15	12	10		
8	EI9FVB		80	40	30	20	17	15	12	10		
7	EI1DG		40	30	20	17	15	12	10			
7	EI4BZ		80	40	30	20	17	15	10			
7	EI8IU		40	30	20	17	15	12	10			
6	EI7JZ		40		20	17	15	12	10			
6	EI9HX		40		20	17	15	12	10			
5	EI4CF		40		20	17	15	10				
5	EI4GJB				20	17	15	12	10			
5	EI4HH				20	17	15	12	10			
5	EI6AL				20	17	15	12	10			
5	EI6JK		40		20		15	12	10			
5	EI8GS		80	40		20		15	10			
5	EI9E		80	40		20		15	10			
5	EI9GLB				20	17	15	12	10			
5	EI9JF		40	30	20	17	15					
4	EI3GV				20	17	15		10			
3	EI3CTB				20		15		10			
3	EI4GK				20		15		10			
3	EI4GNB				20		15		10			
3	EI5EV				20		15		10			
3	EI6FM				20		15		10			
3	EI6HB				20		15		10			
3	EI7GL		40							10	6	
3	EI9HQ				20		15		10			
2	EI2II				20				10			
2	EI4DQ										6	2
2	EI5IF				20		15					
2	EI7IG				20		15					
2	EI7JN				20		15					
2	EI8IQ				20		15					
2	EI8JX				20		15					
1	EI3EBB										6	
1	EI3HA				20							
1	EI5FQB				20							
1	EI5GSB				20							
1	EI6S		80									
1	EI9CJ									10		
		160	80	40	30	20	17	15	12	10	6	2

## IRTS Contests : Section Winners

### CW Field Day, 3rd/4th June

Restricted / 24h Section  
Restricted / 6h Section

EI0M/P, Mayo Radio Experimenters Network (op: EI5IX)  
EI1E/P, Avondhu Radio Club (ops: EI4KH EI5KF)

### VHF/UHF Field Day, 1st/2nd July

Open Section

EI9E/P, Network Southern Area Radio Experimenters Club  
(ops: EI2FG EI3JE EI3JZ EI3KD EI4GZB EI5ASB EI5IX  
EI7FJ EI7IG EI8IQ EI8KN EI9HQ G4CLA)

Restricted / 144 MHz  
Restricted / 1296 MHz

EI7T/P, Tipperary Amateur Radio Group (op: EI3ENB)  
EI7FAB/P, John Browne

**Entries in Bold Type show changes since 26th May 2017**

The following Silent Keys were holders of DXCC Awards		
DXCC Honor Roll		
<b>Mixed</b>		<b>CW</b>
336	EI8H/365	109
331	EI2GS/340	<b>Phone</b>
		338
		EI2GS
		300
		EI8AU
<b>Mixed</b>		114
365	EI8H	EI4EX
340	EI2GS	105
		EI1CS



## Silent Key

### Tony Allen EI4DIB



The death has occurred of Tony Allen EI4DIB of Drogheda, County Louth on Sunday 18th June 2017. Tony was very well known in amateur radio circles in the North East and further afield; a valued and loved member of Dundalk Amateur Radio Society. He is sadly missed by all who had the privilege of coming into contact with him. He was an outstanding teacher of the radio theory classes where his love for our hobby was clearly evident.

Please see elsewhere in this edition of Echo Ireland an appreciation of Tony EI4DIB written by Anthony EI2KC.

*May he rest in peace*

## Silent Key

### Anatolij Mezankov EI4JF



The death has occurred of Anatolij Mezenkov EI4JF of Mahon in Cork. He was an active CW operator and a member of Cork Radio Club. We extend our deepest sympathy to his family and friends.

*May he rest in peace*

## Silent Key

### Hugh Forde EI6CPB



Hugh Forde EI6CPB, formerly of Bray and latterly of Wexford, died peacefully on 16th August 2017 in the Mater Hospital, Dublin after a long illness spanning 20 years.

Hugh was a past member of the South Dublin Radio Club and one of the founders of the Two Counties DX Cluster Group. He was the Sysop of the Wicklow DX Cluster EI7WDX. Hugh operated on most frequency bands below 144 MHz and was a keen CBER in days gone by.

*May he rest in peace*

**Echo Ireland - the Journal of IRTS**, the Irish Radio Transmitters Society, is published quarterly. The Society also publishes **EiNews** - a monthly newsletter.

Private advertisements from paid-up members are published free of charge.

Articles and event information for publication are welcomed. Send your manuscript to [newsteam@irts.ie](mailto:newsteam@irts.ie) as a word-processing file attachment, **not as a PDF**. Please do not attempt to format the document to look like a printed page. Images and illustrations should be embedded in the file *for position only*. If you do not also send your images as separate high-resolution files, they will not be used. Make sure to put captions for all images and illustrations at the end of the article, rather than embedded within the images or the main text of your article. Please include the full names and call signs of people included in photos and where necessary obtain their permission.

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## UKEICC Random Numbers Contests

The concept of exchanging “random” numbers, rather than sequential serials, has been around for some time but not yet fully developed by any contest sponsor. The UK & Ireland Contest Club team is hoping to find out whether this format is likely to be popular, and has announced two one-hour 80m contests as trial runs.

**SSB - Monday 25th September 1900-1959z**

**CW - Monday 2nd October 1900-1959z**

As an alternative to standard serials, approved loggers generate a four-digit pseudo-random number to be sent, and you log the number received even if it happens to be a traditional serial from other loggers. Your logger calculates the next number to be sent based on what you logged in your previous QSO(s). These contests are expected to test both operating skill and logging accuracy. There is no need to exchange “reports”.

It's all simpler than it sounds, and you can try it for yourself by downloading SD, V19.15 or later, from [www.ei5di.com/sd/sdsetup.exe](http://www.ei5di.com/sd/sdsetup.exe). The relevant options are “UKEI Random, CW” and “UKEI Random, SSB”, and they are free and unrestricted for the trial runs - with no need to register. The team expects that N1MM+ and SkookumLogger will also be approved for the trials.

Please check the rules at [www.ukaicc.com](http://www.ukaicc.com). For the trials there are no separate sections or categories, and no additional penalties for logging errors.

## Members Ads

**For Sale:** FT101B HF transceiver €250. FV101B external VFO €60. FTV250 2m transverter €50. YC601 Digital display unit €50. Matching speaker €25. Matching mic €25. ATUs: KW109 (badged as Decca) €130. KW 108 (badged as Decca) €70. Johnson Matchbox with directional coupler and indicator €100. Johnson Matchbox €70. Instruction manuals for all. MFJ 1835 Cobweb antenna. Never used. Unopened in sealed shipping container. Must sell. €250  
Seán EI2CR 01 810 7383  
[seancarvin@eircom.net](mailto:seancarvin@eircom.net).

**For Sale:** Yaesu FT847, modified by EI7BA, with new ATU, boxed, €1200. AOR ARD 300, 8 months old, boxed, €600. New cooling fan for Yaesu FT101ZD €100. Fox Tango Newsletters €100. ICOM IC7100, as new, boxed, €1,000. Practical Wireless, Radio User and other magazines, stack over 4ft high to take away. Jimmy EI8FC 086 303 2705

**For Sale:** Tennamast free-standing tilt mast approximately 26ft. Complete with rotator cage, Dutton-Lainson brake winch and heavy-duty control cable. Good condition €250 ovno. Buyer Collects (Mayo). David EI3ECB 086 059 8606

**For Sale:** 8el LFA 2m yagi €50. 12el m2 2m yagi €50. Yaesu FTV901R VU transverter, no 6m module fitted €75. Tom 087 933 0209  
[ei5asb370ms@gmail.com](mailto:ei5asb370ms@gmail.com)

**For Sale:** Afedri SDR NET €140. Softrock RX Ensemble II kit, unopened €50. Vectronics VED-820K Super CW filter kit, unopened €10. Rig Expert TTL-I-1 data interface for Yaesu FT100, 817, 857, 897 unused in box €80. ELAD switch sox unused €50. Ameritron RCS-10 remote coax switch, used €100. Yaesu FT7800 with new DTMF mic & data cable €180. Kenwood TMD-700 2M/70cm €180. Alinco DM-330MW PSU €90. Fox Delta AAZ-0914A USB antenna analyser, new unused €70. Mode S Beast €180. JetVision SCO-1090 Antenna, new unused €50. Various VHF/HF SWR/PWR meters.

Various VHF Scanners.  
Ger EI4GXB 087 253 2512.

**For Sale:** Kenwood AT200 PWO €230, MFJ Frequency Counter PWO, purchased in Dayton €130. Diamond SX-600 power meter never used also purchased in Dayton €130. Joe EI4GX 083 181 3548.

### IRTS Shop

IRTS Members can avail of a 10% discount on purchases from the RSGB on-line shop - [rsgbshop.org](http://rsgbshop.org). Members should select the "Non-member's Price" before placing the order and then enter the IRTS Discount Code during the checkout process. At this point the discount will be applied.

IRTS members who are also RSGB members should continue to select the "RSGB Member's Price" and not use the IRTS Discount Code.

The current IRTS Discount Code is **IRTS2020XWW**— it will change from time to time.

[www.rsgbshop.org](http://www.rsgbshop.org)

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<b>V-2000</b>	2.15/6.2/8.4 db	<b>€135</b>
<b>X-50N</b>	4.5/7.2 db	<b>€79</b>
<b>X-30N</b>	3/5.5 db	<b>€59</b>



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